

B1 wherein D_{90} and D_{10} represent the primary particle size that the pigment particles having a primary particle size up to and including D_{90} account for 90% by number of the total pigment particles, and the particle size that the pigment particles having a primary particle size up to and including D_{10} account for 10% by number of the total pigment particles, respectively, in the integral of the primary particle size distribution function $dG = f(D) \times dD$ of the pigment particles in which G is a particle number (%) and D is a primary particle size (nm).

2. (pending) The pigment dispersion liquid of claim 1, wherein the average primary particle size of the pigment particles is not more than 30 nm.

1. 3. (amended) The pigment dispersion liquid of claim 1, further comprising a surfactant.

B2 4. (amended) The pigment dispersion liquid of claim 1, wherein the water soluble polymer is adsorbed on the surface of the pigment particles.

5. (pending) The pigment dispersion liquid of claim 4, wherein the water soluble polymer has an anionic polar group.

6. (pending) The pigment dispersion liquid of claim 1, wherein a surfactant is adsorbed on the surface of the pigment particles.

7. (pending) The pigment dispersion liquid of claim 1, wherein the pigment dispersion liquid comprises a pigment derivative having a polar group.

8. (pending) The pigment dispersion liquid of claim 1, wherein the dispersion medium is an aqueous medium containing water in an amount of at least 50% by weight.